(c) Remarks:

The claims are 1-17 with claims 1, 5, 6, 7, 8, 15 and 16 being independent. Group II claims, claims 6-13, and 16, were withdrawn as nonelected. Since the Examiner indicated rejoinder of Group II is permitted, such claims have been amended in accordance with the elected Group I claims under M.P.E.P. § 821.04. New claims 17 and 18 are added. Support is found on page 8, lines 9-11, Fig. 1 and Examples 1 and 2, for example, as on page 27, lines 19-22 and page 40, lines 5-8. Reconsideration of the claims is requested.

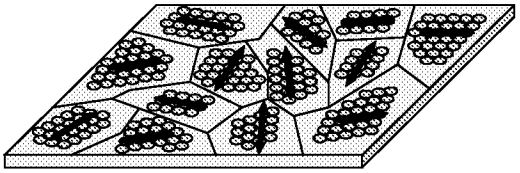
The objections to claims 1-5 and 15 under Rule 112, first and second paragraphs in paragraph nos. 2 and 3 of the outstanding Official Action have been resolved in accordance with the Examiner's suggestions. Support for these amendments is found, *inter alia*, on page 14, line 23 to page 15, line 10.

Claims 1, 5 and 15 were rejected as unpatentable over Besson, et al., in view of Lui '626. The rejection is respectfully traversed.

The Examiner argues that it is reasonable to presume in Besson, et al. , that the structure in parallel with the substrate of the film has a 6-fold axis perpendicular to a film plane and symmetric reflective surfaces, including the 6-fold axis facing in the same direction, across the entire film. Alternately, the Examiner argues these features are inherently present in Besson, et al., and applicants are to prove otherwise. Applicants welcome the opportunity to demonstrate the Examiner's arguments concerning inherency and presumption are incorrect.

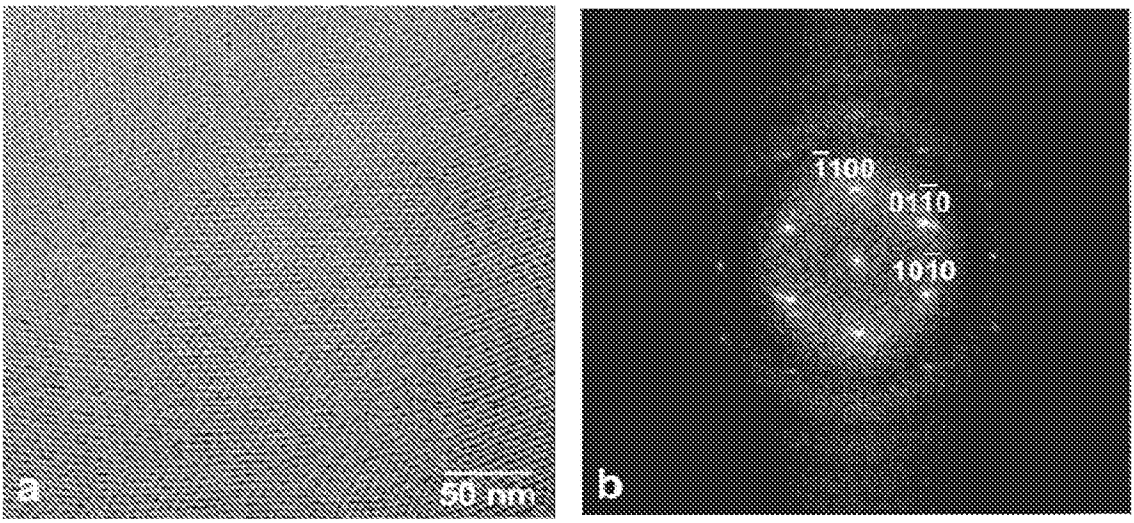
The following explanation is provided for the Examiner's benefit for the feature "symmetric reflective surfaces of the structure including the 6-fold axis are facing in the same direction across the entire film" as claimed in the present invention.

The mesoporous silica thin film in the cited Besson, et al. article can be schematically illustrated in the following drawing.



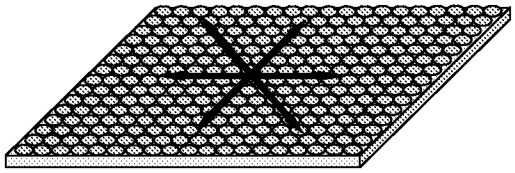
That is, while the film locally has a 6-fold symmetrical structure, the arrangement direction is not regulated across the entire film. The domains of the 6-fold symmetry have various degrees of freedom of rotation in the film and are randomly aligned.

The above alignment of domains is indicated in "Figure 1" of the cited Besson article as reproduced below.



The above diffraction pattern "a" indicates the presence of local structures with 6-fold symmetry. However, the electron micrograph "b" of the diffraction pattern "a" clearly shows that domains different from the direction of the symmetric mirror planes of 6-fold symmetry are present in the film. In other words, the film in the Besson, et al., article exhibits a porous structure similar to that of a polycrystalline structure.

In contrast, the mesoporous silica thin film in the present claimed invention can be schematically illustrated as in the drawing below.



That is, unlike the structure of the mesoporous silica thin film in the cited Besson, et al. article, in the mesoporous silica thin film of the present invention, the symmetric mirror planes of 6-fold symmetry are present in the same direction throughout the film. In other words, the structure of the mesoporous silica thin film of the present invention is in a single-crystal state.

Accordingly, Besson, et al. teaches away from symmetric mirror planes of 6-fold symmetry in the same direction throughout the film. The evidence in Besson, et al. in its Fig. 1, especially 1(b) is to the contrary. Therefore, the Examiner's "inherency" argument must fail as well as the "reasonable presumption" argument.

The claims should be allowed and the case passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

/Peter Saxon/
Peter Saxon
Attorney for Applicants
Registration No. 24,947

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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